

### **REMARKS**

Claims 1-27, 38, 40-45, 47-54, 58-62, 64, 67-73, 77-81, and 83-86 are presented for the Examiner's review and consideration. Claims 1, 3, 8, 15, 17, 20, 24, 38, 40, 60, 69, 73, and 77 have been amended and claim 39, 46, and 76 has been cancelled. Applicant believes that the claim amendments, cancellations, and remarks herein serve to clarify the present invention and are independent of patentability. No new matter has been added.

#### **Priority**

The Examiner request that Applicant supply copies of the foreign art cited on page 1 of the specification.

Initially, Applicant notes that German Applications 298 08 317.5, 299 01 657.9, and 299 00 289.6 were not published. As such, Applicant attaches herewith copies of PCT Application PCT/DE 99/01000 and PCT/DE 00/01889.

#### **In the Drawings**

The drawings were objected to be because of the following informalities;

- a. Paragraph 7, last line is not clear (i.e. no figure number are given). Applicant has amended the last line of paragraph 7 to recite "See Fig. 2 of the drawings."
- b. Figures 3a-3c should not be connected in paragraph 32. Applicant has amended paragraph 32 and added paragraphs 32.1 and 32.2 to individually describe Figures 3a, 3b, and 3c.
- c. Figures 10-11 should not be connected in paragraph 36. Applicant has amended paragraph [00036] and added paragraphs 36.1 and 36.2 to individually describe Figures 9, 10, and 11.
- d. In Figure 1, there are no arrows on the lead lines to the blocks (which way does input or information flow). Applicant notes that Figure 1 is not a flow chart, but

- is a description for three situations, and as such arrows would not be appropriate.
- e. Contrary to paragraph 50, lines 5, reference number 13 does not refer to a carriage in Figure. Applicant submits that reference numeral 13 does refer to a carriage or sled. Referring to the upper portion of Figure 2, reference numeral 13 indicates a carriage or sled.
  - f. In paragraph 50, reference numeral 13 is a sled, but in paragraph 51, line 45, reference numeral 13 refers to status detection means. Applicant has amended paragraph 51, and Fig. 2 such that reference numeral 63 refers to the status detection means.
  - g. Paragraph 61 is not understood, what is the upper and lower parts in the drawing. Applicant submits that the upper part refers to the top portion of the figures, above section line, and the lower part refers to the bottom portion of the figure below the section line. However, in order to provide further clarification, Applicant has amended paragraph 61 to more fully describe the drawing. No new matter has been added.
  - h. Reference numeral 19, in paragraph 62, line 2, is not in the drawing. Applicant has amended paragraph 62 to correctly recite reference number 10, as shown in the drawing.
  - i. Generally paragraph 62 is not clear, possible due to reference numeral 19 being missing from the drawing and the poor illustration in Figure 5. As noted above, paragraph 62 has been amended to correctly recited reference numeral 10. Additionally, paragraph 61 has been amended to provide further clarification to Figure 5. As noted, Figure 5 shows a situation before and after load absorbing metal sheet 12 acted.
  - j. Throughout paragraph 49, reference numeral 6 refers to detection means, but in paragraph 67, line 10, reference numeral 6 refers to deformation mean. Applicant has amended paragraph 67 and Figs.6-8 such that reference numeral 64 refers to

the deformation means.

- k. Reference numeral 39, in paragraph 67, line 13, is not in the drawing. Paragraph 67 refers to Figs. 6 to 8, reference numeral 39 is shown in Fig. 8.
- l. Comparing Figures 6 and 8, the shape of part 36 changes. Applicant submits that the shape of part has not changed by the position and orientation of the part has changed due to the activation and described in paragraphs 67 and 68.
- m. Reference numeral 23, paragraph 68, line 2, is not in the drawings. Applicant has amended Figures 6-8 to include reference number 23.
- n. In paragraph 69, line 1, reference numeral 45 should apparently be 42. Applicant has amended paragraph 69 to recite reference numeral 42.
- o. In Figure 9 section line Y and Z should be "10-10" and "11-11." Applicant has amended Figure 9 in accordance with the Examiner's instructions.
- p. Reference characters S' and S", in paragraph 89, line 6, paragraph 91, and the remainder of the specification, are not in the drawing. Paragraph 89 has been amended to reference Figures 9-11, where reference character S' is depicted in Figure 9 and reference character S" is depicted in Figure 11.
- q. Bolts 10 and 11 in Figure 2 are different from bolts in Figures 10 and 11 but have the same reference numeral (i.e. the bolts in Figure 2 are explosive compared to paragraphs 89 and 91. Applicant submits that the bolts are always non-explosive and are shown in relation to explosive charges. Specifically, in Figure 2 bolts 10 and 11 are shown with explosive charge S and in Figures 9-11 bolts 10 and 11 are shown in relation to explosive charges S' and S".
- r. Paragraph 90, lines 1-2, states that part 47 is the smaller charge, but charge 48 is the smaller charge in Figure 9. Applicant has amended Figure 9, to show part 47 as the small charge.
- s. Noting Figure 10, it is not clear where bolt 11 is in Figure 9. Bolt 11 is not shown in figure 9, being hidden. Figure 10 is a section view of section "10-10" showing

bolt 11.

- t. Regarding paragraph 117, line 1 and the remainder of the specification, it is not clear what FMVSS 208 is. FMVSS 208 is the U.S. Federal Motor Vehicle Safety Standards 208 to protect car drivers “against” hitting air bags.
- u. Paragraph 120, last line states to see illustration of the active airbag lid, but no such illustration is given in the drawings. Applicant has amended paragraph 120 removing this statement.
- v. Some of the reference numerals in Figure 16 are 90 degrees offset from what they should be. Applicant has amended Figure 16 accordingly.

The drawings were objected to under 37 CFR 1.83(a), where drawings must show every feature of the invention specified in the claims. Specifically, the Examiners stated that the following limitations in the claims are not shown in the drawings:

- a. In claims 3 and 17 the electrical device. Claims 3 and 17 have been amended to delete this limitation.
- b. In claim 7 the material deforming bolts. Applicant submits that the material deforming bolts, designated as reference numerals 10. Bolts 10 and 11 influence deformation of the load absorbing sheet. Additionally, the load restrictor 8 tears at the tearing seam 26 by means of bolts 10. This is described and shown in 61 and Figs. 4 and 5.
- c. In claims 8 and 27 the driver’s size, weight and posture and height sensor. These components are part of control 5 which senses or detects passenger's parameters by means of detection means 6 and triggers an operation mode of the adjustment means 3 in dependence on the passenger's parameters. (See paragraph 49 and Fig. 2)
- d. In claims 13 and 14 the electrical and optical switch. These components are part of control 5 which senses or detects passenger's parameters by means of detection

means 6 and triggers an operation mode of the adjustment means 3 in dependence on the passenger's parameters. (See paragraph 49 and Fig. 2)

- e. In claim 60 the releasable rivet. Claim 60 has been amended to delete this limitation.
- f. In claims 46-47 and 52-54 the sheet metal plate member. The sheet metal member is shown in Figure 5, reference numeral 12.

Applicant is submitting replacement drawings as noted above, where the replacement drawings are each labeled "Replacement Sheet" at the top margin of the page. Additionally, Applicant is submitting New Sheets for Figures 2a, 3b, and 3c and Figures 10 and 11, where in the New Sheets, Figure 3a appears on a separate sheet from Figures 3b and 3c. Similarly in the New Sheet for Figures 10 and 11, Figures 10 and 11 appear on separate sheets. The New Sheets are being submitted to replace the previous figures, and provide an increased clarity. No new matter has been added.

In light of the foregoing, Applicant requests reconsideration and withdrawal of the drawing objections.

#### In the Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. Specifically, the Examiner stated that there is no support for:

- a. In claims 3 and 17 the electrical device. Claims 3 and 17 have been amended to delete this limitation.
- b. In claims 8 and 27 the driver's size, weight and posture and height sensor. These components are part of control 5 which senses or detects passenger's parameters by means of detection means 6 and triggers an operation mode of the adjustment means 3 in dependence on the passenger's parameters. (See paragraph 49 and Fig. 2)

- c. In claims 46-47 and 52-54 the sheet metal plate member. The sheet metal member is shown in Figure 5, reference numeral 12.

Accordingly, Applicant submits that the specification does provide proper antecedent basis for the claimed subject matter.

The disclosure was objected to because of the following informalities:

- a. In paragraph 7, line 13 “[and]” should be deleted. Applicant has amended the paragraph in accordance with the Examiner’s suggestion.
- b. In paragraph 9, line 1 “according to may have” is unclear. Applicant has amended this paragraph to recited “according to the above may have.”
- c. In paragraph 9, line 3 “cam” should be “can.” Applicant has amended the paragraph in accordance with the Examiner’s suggestion.
- d. In paragraph 10, line 1, one instance of according to should be deleted. Applicant has amended the paragraph in accordance with the Examiner’s suggestion.
- e. In paragraph 12, line 6 “parts” should be “part.” Applicant has amended the paragraph in accordance with the Examiner’s suggestion.
- f. Paragraph 23, lines 1-4 are an incomplete sentence. Applicant has amended the paragraph to provide a complete sentence.
- g. Paragraph 23, lines 4-8 are an incomplete sentence. Applicant has amended the paragraph to provide a complete sentence.
- h. Paragraph 50, last line is not clear (“sheet 12 has to be deformed itself and/or against the bolts 10 and 11”). Applicant has amended paragraph 50 to recite “this movement is absorbed or damped by the load absorbing means 7 as the load absorbing metal sheet 12 has to be is deformed upon itself and/or the load absorbing metal sheet is deformed against the bolts 10 and 11. As such, the load absorbing metal sheet deforms upon itself, i.e. crinkles, and/or is deformed by the

bolts 10 and 11.

- i. In paragraph 59, “screwings “ should be “screws.” Applicant has amended the paragraph in accordance with the Examiner’s suggestion.
- j. Paragraph 69, lines 1-2 are incomplete sentence. Applicant has deleted lines 1-2 from paragraph 69.
- k. Paragraph 72, last three lines are incomplete sentence. Applicant has amended the paragraph to provide a complete sentence.
- l. In paragraph 73, line 5 “grooves/form” is not understood. Applicant has amended the paragraph.
- m. In paragraph 82, line 2, “to” should proceed “act.” Applicant has amended the paragraph in accordance with the Examiner’s suggestion.
- n. In paragraph 87, line 3 and the remainder of the specification “column” should following “steering.” Applicant has amended the paragraph in accordance with the Examiner’s suggestion.
- o. In paragraph 87, line 4 has a dangling phrase (“the sled guiding casing”). Applicant has deleted this.
- p. Regarding paragraph 87, line 5 it is unclear what “the pointed wall” and “the dash assembly” are in the invention. These are terms of art, which are vehicle interior parts that may be of danger to the driver when moved towards a driver in case of a crash.
- q. In paragraph 87, the last line “reference to the accident event” is unclear. Applicant has deleted this.
- r. In paragraph 92, line 3 “tunes” should be “tuning.” Applicant has amended the paragraph in accordance with the Examiner’s suggestion.
- s. Regarding paragraph 95, line 7, it is not clear how bolts 10 and 11 are unlocked. Applicant submits that the two bolts 10 and 11 are unlocked by the ignition of the charges S to decouple sheet 12 and sled 13, and has amended the paragraph

accordingly. The amendment is support by the specification. No new matter has been added.

- t. In paragraph 125, line 4 “steering” should be “steering column. Applicant has amended the paragraph in accordance with the Examiner’s suggestion.
- u. In paragraph 125, line 5 “steering” should be “steering column. Applicant has amended the paragraph in accordance with the Examiner’s suggestion.

In light of the foregoing, Applicant requests reconsideration and withdrawal of the objections to the specification.

#### 35 U.S.C. §112 Rejections

Claims 1-27, 39-54, 58-62, 64, 67-73, 76-81, and 83-86 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The Examiner states that the claim(s) contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains or which it most nearly connected, to make and or use the invention. Specifically, in paragraph 55, lines 1-4, it is not clear what igniting only the charge in bolt 11 will do. (Bolt 10 is closer to where the deformation will occur in Figure 2).

As provided in paragraphs 53-56, the control is designed for three modes of operation, small women, tall man with seat belt, and tall man without seat belt. In each mode a different level of protection is needed. A small woman sits close to the steering column, and will have little momentum to impact. As such the control 5 ignites the explosive charges 5 of the two bolts 10 and 11 so that they become ineffective and the load absorbing metal sheet 12 and the carriage or sled 13 are decoupled.

A tall mans sits farther away, and will travel a greater distance to impact having a greater momentum. However, since the seat belt is being worn, a portion of this momentum is absorbed by the seat belt. As such, only one of the bolts 10 or 11 is needed. As bolt 10 is closer, the



explosive charge S only of the bolt 11 is ignited so that only this one becomes ineffective and the load absorbing metal sheet 12 and the carriage 13 are only coupled by the bolt 10. As such, only bolt 10 is effective in the load absorption. This is inline with the Examiner's observation that bolt 10 is closer to where the deformation will occur.

For the tall man, without a seat belt, both bolts 10 and 11 remain effect.

As such, the ignition of the bolts, to decouple them from the plates, is dependent on the size and seat belt usage of the driver. Accordingly, Applicant submits the subject matter is described in the specification in such a way as to enable one skilled in the art to which it pertains or which it most nearly connected, to make and or use the invention.

In light of the foregoing, Applicant requests reconsideration and withdrawal of the section 112, first paragraph rejection.

Claims 1-27, 38-54, 58-62, 64, 67-3, 81 and 84 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter.

- a.-d. Claim 1 was rejected for a number of informalities. Applicant has amended claim accordance with the Examiner' suggestions.
- e. In claim 7 and 19, the material deforming bolts is not understood from the specification. As previously discussed, Applicant submits that the material deforming bolts, are designated as reference numerals 10 and 11. Bolts 10 and 11 influence deformation of the load absorbing sheet. Additional, the load restrictor 8 tears at the tearing seam 26 by means of bolts 10. This is described and shown in [00061] and Figs. 4 and 5.
- f. The recitation in claim 8 of sensors sensing the driver's seat position and seat belt fastening status is a double inclusion of the sensors already recited in claim 1(c) and 1(d). Claim 1(c) recited a first sensing device for sensing a physical parameter related to the size of the driver when the driver has entered the motor

vehicle and providing a first configuring output. However, the claim recited no direct sensing of the seat position. Applicant submits that there are a number of different methods for sensing a driver's size. Claim 8 simply provides one of the sensing methods. The seat belt sensor has been deleted from claim 8.

- g.-h. In claim 8 it is not clear how the sensor would sense the driver's size in addition to driver's weight, or provide output about the driver's seat position in addition to the driver posture. Claim 8 has been amended such the deleting the recitation of the driver size. As noted above, there are a number of different methods for sensing a driver's size. Claim 8 simply provides a number of the sensing methods, namely the seat position and the driver weight. Additionally, the seat position is the distance the seat is set from the steering column, the driver's posture is sensed by, for example, the recline in the seat back. As such, the seat position sensor senses the position of the seat, whereas the driver's posture sensor senses the configuration of the seat.
- i. In claim 10, line 3, there is not clear antecedent basis for "the steering column." Applicant has amended claim 1, from which claim 10 depend, to provide the proper antecedent basis.
- j.-l Claim 15 was rejected for a number of informalities. Applicant has amended the claim in accordance with the Examiner's suggestions.
- m. In claim 20 it is not clear how the sensor would sense the driver's size in addition to driver's weight, or provide output about the driver's seat position in addition to the driver posture. Claim 20 has been amended deleting the recitation of the driver size. As noted above, there are a number of different methods for sensing a driver's size. Claim 20 simply provides a number of the sensing methods, namely the seat position and the driver weight. Additionally, the seat position is the distance the seat is set from the steering column, the driver's posture is sensed by, for example, the recline in the seat back. As such, the seat position sensor

senses the position of the seat, whereas the driver's posture sensor senses the configuration of the seat.

- n. In claim 22, line 3, there is not clear antecedent basis for "the steering column." Applicant has amended claim 15, from which claim 22 depend, to provide the proper antecedent basis.
- o. In claim 24, it is not clear which load absorber is meant, as a pair of load absorbers were recited in claim 15. Applicant has amended claim 24, reciting that at least one of the load absorbers is unlocked in response to the driver not wearing a seat belt.
- p. In claim 38, line 5 "can be" fails to positively recited structure. Applicant has amended the claim to positively recited structure.
- q. Claim 54 is not clear because there is no discussion of this in the specification. Claim 54 is directed to FIG. 5 and the accompanying description in the specification.
- r. In claim 69, line 3 "when the load absorber is unlock" is a negative limitation (the load absorber has not been previously defined an unlocking). Applicant has amended claim 69, removing this limitation.
- s and x In claim 73, there is no antecedent basis for "the power unit." Claim 73 has been amended to provide antecedent basis for the power unit.
- t. Claim 81 is not understood what is meant by "a tearing of metal." Claim 81 is directed to FIG. 5 and the accompanying description in the specification.
- u. Claim 84, it is inaccurate to recite the load absorption as rendered active by a locking action (it is already locked). Applicant submits that claim 84 is directed to an embodiment which is unlocked, and locking is thus derived for a locking action.
- v. Claim 46-47 and 52-54 are not clear because there is not disclosure of a sheet metal plate with a tearing seam. The sheet metal plate with the tearing seam is

shown in Fig. 7, see reference 26.

- w. Claim 62 would not appear to be accurate to the elected embodiment. Applicant requests the withdrawal of claim 62.

In light of the foregoing, Applicant requests reconsideration and withdrawal of the section 112, second paragraph rejections.

#### 35 U.S.C. §102 Rejections

Claims 38-41, 46-47, 42-54, 62, 68, 73, and 76 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,886,295 to Browne. ("Browne"). In response, Applicant respectfully submits that this rejection should be withdrawn.

Initially, claims 39, 46, and 76 have been cancelled rendering the rejection of these claims moot.

The Examiner stated that Browne discloses a split sleeve 84 with ball 90 serve as at least one lockable load absorber. Browne recited that 84 is a split cylindrical sleeve, preferably of the same low carbon steel as the lower mast jacket 28, is disposed in the annular chamber to the housing radially inboard of the bags and against the side wall 74 of the bag. (col. 3, lines 44-48)

As such, Browne discloses a "lockable load absorber" which include a split cylindrical sleeve disposed in an annular chamber. However, Browne does not disclose that the "lockable load absorber" is composed of a deformable sheet metal plate member provided with a tearing seam, such that a load is absorbed by deforming the deformable sheet metal plate member, including tearing the deforming the deformable sheet metal plate member at the tearing seam.

Claim 38 has been amended to recite, *in part*, a safety telescopic steering column system for a motor vehicle in which an upper part of the telescopic steering column telescopes with respect to a lower part that is fixed relative to the vehicle. The safety telescopic steering column system including a coupling having at least one lockable load absorber, the coupling interconnecting the telescoping parts of the steering column that is arranged in a plurality of

different operative configurations, wherein the at least one load absorber is composed of a deformable sheet metal plate member provided with a tearing seam, such that the load is absorbed by deforming the deformable sheet metal plate member, including tearing the deforming the deformable sheet metal plate member at the tearing seam.

Accordingly, Applicant submits that claim 38 is patentable over Browne. As claims 40, 41, 47, 52-54, 62, 68, and 73 depend from claim 38, these claims are submitted to be patentable at least for the same reasons.

#### 35 U.S.C. §103 Rejections

Claims 43 and 45 were rejected under 35 U.S.C. §103(b) as being unpatentable over Browne in view of WO 98/22325. In response, Applicants respectfully submit that this rejection should be withdrawn.

Claims 43 and 45 depend from claim 38. As noted above claim 38 is submitted to be patentable over Browne. Applicant submits that WO 98/22325 fails to overcome the deficiencies in Browne. Accordingly, Applicant submits that these claims are to be patentable at least for the same reasons.

#### Allowable Subject Matter

The Examiner stated that claims 1 and 15 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. 112, 2<sup>nd</sup> paragraph.

As previously discussed, Applicant submits that claims 1 and 15 have amended to overcome the rejection under 35 U.S.C. 112, 2<sup>nd</sup> paragraph and as such are in condition of allowance.

The Examiner stated that claims 2-14, 16-27, 42, 44, 48-51, 58-61, 64, 67, 69-72, 77-81, and 83-86 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. 112, 2<sup>nd</sup> paragraph and to include all of the limitations of the base claim and any intervening claims.

Applicant(s): Olaf Muller.  
Application No.: 10/771,846  
Examiner: E. Culbreth

As previously discussed, Applicant submits that claims 2-14, 16-27, 42, 44, 48-51, 58-61, 64, 67, 69-72, 77-81 have been amended to overcome the rejection under 35 U.S.C. 112, 2<sup>nd</sup> paragraph. Additionally, as claims 2-14 depend from claim 1, claim 16-27 depend from claim 15, and claims 43, 44, 48-51, and 58-61, 64, 67, and 69-72 depend from claim 38, Applicant submits that these claims are allowable at least based on their dependences.

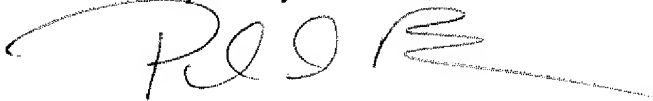
Furthermore, claim 77 has been amended to include all of the limitations of the base claim and any intervening claims. As such, claim 77 is submitted to be allowable. As claims 78-81 and 83-86 depend from claim 77, Applicant submits that these claims are allowable at least based on their dependences.

#### Conclusion

In light of the foregoing, this application is now in condition for allowance and early passage of this case to issue is respectfully requested. If any questions remain regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

A fee of \$1020.00 under 37 C.F.R. 1.17(a)(3) for a three month extension of time is believed due and is being paid via Credit Card Payment. However, please charge required fees (or credit any overpayments of fees) to the Deposit Account of the undersigned, Account No. 500601 (Docket No. 7100-X04-025CIP).

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'P. Bianco', with a long horizontal flourish extending to the right.

Paul Bianco, Reg #. 43,500

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